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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PHILIP BOURGEOIS and MUNISH SHAH

Appeal 2014-009537
Application 13/586,288
Technology Center 3700

Before WILLIAM A. CAPP, JAMES J. MAYBERRY, and SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Philip Bourgeois and Munish Shah (Appellants)[1] appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1–25 and 30–34.[2] Appellants' representative presented oral argument on April 12, 2017.[3] We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We REVERSE.

SUMMARY OF THE INVENTION

Appellants' disclosure is directed to multilayer polymeric tubing in which the layers are successively adhered. Spec. ¶ 2. Claim 1, reproduced below from page 48 (Claims Appendix) of the Appeal Brief with paragraph structure added, is illustrative of the claimed subject matter:

> 1. A tube comprising an inner layer, an outer layer and a barrier layer disposed between the inner layer and the outer layer,
>
> wherein the barrier layer is bound to the outer layer by a layer of adhesive disposed between the outer layer and the barrier layer and the barrier layer is bound to the inner layer by a layer of adhesive disposed between the inner layer and the barrier layer,
>
> wherein the inner layer comprises a polyethylene, the outer layer comprises a thermoplastic polyurethane and the barrier layer comprises a material that acts as a barrier to gas.

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[1] According to Appellants, the real party in interest is Tekni-Plex, Inc. App. Br. 3.

[2] Claims 26–29 are withdrawn. *Id.* at 53 (Claims App'x).

[3] Oral argument was made in absence of a court reporter. Appellants' representative expressly waived recordation of the oral argument.

REJECTIONS[4]

Claims 1 and 2 stand provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 1 of copending U.S. Patent Application No. 13/354,029 ("the '029 Application").

Claims 15, 16, and 18 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 1, 2, 6, and 15–18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quigley (US 6,357,485 B2, iss. Mar. 19, 2002), Messerly (US 5,052,444, iss. Oct. 1, 1991), and Kanai (EP 2 177 805 A2, pub. Apr. 21, 2010).

Claims 3, 4, 7–10, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quigley, Messerly, Kanai, and Bekele (US 8,399,077 B1, iss. Mar. 19, 2013).[5]

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Quigley, Messerly, Kanai, and Mueller (US 2009/0317611 A1, pub. Dec. 24, 2009).

Claims 11, 12, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quigley, Messerly, Kanai, Julien (US

[4] The rejection of claims 2, 6–10, and 12 under 35 U.S.C. § 112, second paragraph, as being indefinite is withdrawn. Ans. 23.

[5] We note that although claim 13 was not included in the heading of this rejection, its recitations are addressed in the body of the rejection. *See also id.* at 7–8, 23.

2009/0087606 A1, pub. Apr. 2, 2009), Penhasi (US 2003/0208259 A1, pub. Nov. 6, 2003), and Bekele.[6]

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Quigley, Messerly, Kanai, and Julien.

Claims 20–24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Julien and Bekele.[7]

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Julien, Bekele, and Penhasi.

Claims 30 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada (US 2007/0178131 A1, pub. Aug. 2, 2007) and Kanai.

Claims 32 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada, Kanai, Julien, and Bekele.

Claim 34 stands rejected under U.S.C. § 103(a) as being unpatentable over Yamada, Kanai, Julien, Bekele, and Mueller.

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[6] We note that although claim 19 is not included in the heading of this rejection, it is addressed in the body of the rejection.

[7] We note that although the heading of this rejection indicates the claims are rejected in view of Quigley, Messerly, Kanai, and Bekele, the body of the rejection makes clear the rejection is based on Julien and Bekele. *See also* Ans. 15–16, 26.

ANALYSIS

Provisional Double Patenting

The Examiner provisionally rejects claims 1 and 2 on the ground of non-statutory obviousness-type double patenting in view of claim 1 of the '029 Application. Final Act. 3–4.

Initially, we note that the Examiner did not include this provisional rejection in the listing of "rejection[s that] are applicable to the appealed claims" section of, or otherwise mention this provisional rejection in, the Examiner's Answer. *See* Ans. 2. Thus, it is not clear to us whether the Examiner intended to maintain this rejection.

In any event, we do not reach the merits of the Examiner's provisional double patenting rejection because it would be premature to do so at this time, consistent with the holding of *Ex Parte Moncla*, 95 USPQ2d 1884, 1885 (BPAI 2010) (precedential). We note that the '029 Application is still pending, and is itself under appeal.

Indefiniteness

The Examiner finds that the term "visually delaminate" as used in claims 15, 16, and 18 is indefinite because it "is a relative term which renders the claim indefinite." Final Act. 5. The Examiner interprets this language as meaning "to be visual with bare naked eyes, with eyeglasses, with a microscope or with other visualization techniques," which, according to the Examiner, "does not provide a standard for ascertaining the requisite degree." Ans. 23–24 (emphasis omitted).

Appellants traverse, arguing that the phrase "visually delaminate" is "commonplace terminology used in patent claims to designate a

circumstance that can be observed *visually*." App. Br. 39–40. Appellants note that the term "visually delaminate" and other similar terms "[are] routinely recognized by the Patent Office as acceptable under [35 U.S.C. §] 112." *Id.* at 40. Appellants provide a list of 14 U.S. patents they purport to include such claim language. *Id.* at 40–42.

A claim is indefinite when it contains language that is "ambiguous, vague, incoherent, opaque, or otherwise unclear in describing and defining the claimed invention." *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014). Here, the Specification treats whether the tube layers visually delaminate in a binary manner—either there is delamination or there is no delamination—rather than as a term of degree. *See, e.g.*, Spec. ¶¶ 32, 34. Appellants' representative and Dr. Philip Bourgeois confirmed this intention during oral argument, noting that delamination would cause the layers to peel away from each other and would be readily observable with the naked eye rather than requiring any enhanced visualization tool such as a microscope. We therefore interpret "do not visually delaminate" and "does not visually delaminate" as prohibiting any amount of delamination of the tube layers that can be seen by the normal human eye.

Accordingly, we do not sustain the rejection of claims 15, 16, and 18 as being indefinite.

Obviousness Based on Quigley, Messerly, and Kanai

The Examiner finds that Quigley discloses a tube substantially as claimed in independent claim 1, including, *inter alia*, an inner layer (liner

12)[8], a barrier layer (pressure barrier layer 58), an outer layer (outer protective layer 60), and a layer of adhesive (interface layer 56) "disposed between the inner layer and the barrier layer," but fails to disclose that the "barrier layer is bound to the outer layer by a layer of adhesive (56) disposed between the outer layer and the barrier layer[,] and [that] the outer layer comprises a thermoplastic polyurethane." Final Act. 6 (emphasis omitted). The Examiner finds that Messerly discloses a tube (hose 60) having an inner layer (core tube 2), a barrier layer (tape 12)[9], and an outer layer (jacket 10), wherein "the barrier layer is bound to the outer layer by a layer of adhesive." *Id.* (citing Messerly, 4:19–27) (emphasis omitted). The Examiner reasons that it would have been obvious to a person of ordinary skill "to have an adhesive layer between an outer and a barrier layer of a tube to maintain the layers together." *Id.* The Examiner finds that Kanai discloses a tube (heat exchange pipe 16) having an inner layer (first layer 17), a barrier layer (second layer 19), and a polyurethane outer layer (third layer 21). *Id.* (citing Kanai ¶ 13) (emphasis omitted). The Examiner reasons that it would have been obvious to a person of ordinary skill "to use a polyurethane layer as the outer layer of the invention of modified Quigley to modify the flexibility of the tube." *Id.* at 6–7.

Appellants traverse, first arguing that "Quigley does not disclose or suggest . . . an 'inner layer bound to a barrier layer.'" App. Br. 14. Rather, Appellants continue, Quigley's "adhesive (56) is purposely arranged so as

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[8] Parentheticals refer to the terminology of the cited references.

[9] We note that the Examiner cited seam 13 of Messerly's tape 12 as corresponding to the recited barrier layer (Final Act. 6), which we take for a typographical error.

not to bind the inner (12) layer to the barrier layer ([58])" because "Quigley's adhesive (56) is purposely disposed between and binds a *composite (14) layer* to the inner layer (12)" which "***prevents*** inner layer (12) from being bound to barrier layer (58)." *Id.*

The Examiner responds by noting that Quigley's barrier layer 58 is bondable to composite layer 14, which is bonded to liner 12, and, thus, "constru[es] the barrier layer 58 to be bonded to layer 12 by means of adhesive layer 56 and layer 14." Ans. 24. The Examiner also determines that "[A]ppellant does not claim that the inner layer and the barrier layer are directly bound by the adhesive layer." *Id.* at 25.

We are persuaded by Appellants' arguments. Claim 1 recites, in relevant part, "the barrier layer is bound to the inner layer *by a layer of adhesive* disposed between the inner layer and the barrier layer." App. Br. 48 (Claims App'x) (emphasis added). We construe this language as requiring a layer of adhesive to be in contact with both the inner layer and the barrier layer, thereby binding these layers together.[10] The Examiner's interpretation that Quigley's liner 12 is bound to barrier layer 58 "by means of adhesive layer 56 *and [composite] layer 14*" (Ans. 24 (emphasis added)) does not correspond to the claim language. As correctly noted by Appellants, Quigley's interface layer 56 binds liner 12 to composite layer 14, but does not bind liner 12 to barrier layer 58.

Appellants also argue that Messerly does not teach a barrier layer bound to an outer layer because Messerly's tape is surrounded by a pair of

[10] Our construction does not preclude the "adhesive layer" from having two layers of adhesive separated by a carrier layer, such as a film.

fibrous layers that Messerly instructs should not be bound to anything. App. Br. 17 (citing Messerly 3:45–67).

The Examiner responds that because Messerly teaches "that 'it is to be understood that various layers, excepting the two fibrous reinforcement between which the flexible metal tape moisture barrier herein described is located, may be bonded together, when desired by surface softening techniques, adhesives or other suitable bonding means,'" "Messerly teaches the use of adhesive to adhere layers in a tube." Ans. 25 (quoting Messerly 4:19–25) (emphasis omitted).

We are persuaded by Appellants' arguments. Notably, the passage cited by the Examiner for support contradicts the Examiner's conclusion—Messerly specifically states that its tape 12 is *not* to be adhered to its surrounding layers (fibrous enforcement layers 4, 8). Thus, Messerly does not teach an outer layer bound to a barrier layer by an adhesive. Additionally, Messerly's core tube 2 is separated from tape 12 by fibrous reinforcement layer 4, and jacket 10 is separated from tape 12 by fibrous reinforcement layer 8. Thus, tape 12 would not be bound to core 2 or jacket 10 as required by claim 1 even if adhesive layers were added.

We additionally find that the Examiner's rationales for modifying Quigley's tube lack rational underpinnings. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (cited with approval in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). Regarding the modification based on Messerly, the Examiner has not identified a reason why a person of ordinary skill in the art would want to "maintain the layers together." *See* Final Act. 6. Regarding the modification based on Kanai, the Examiner has not

established that forming Quigley's outer protective layer 60 of a thermoplastic polyurethane, alone, would "modify the flexibility of the tube." *See id.* at 7. We note that Kanai teaches forming all of the tube, other than the barrier layer, of polyurethane to achieve flexibility. *See* Kanai ¶ 24 ("[T]he first layer 17 and the third layer 21 are made of polyurethane; and therefore, the pipe is flexible and easily processed.")

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 1, nor of its dependent claims 2, 6, and 15–18, as being unpatentable in view of Quigley, Messerly, and Kanai.

Obviousness Based on Quigley, Messerly, Kanai, and Bekele

Claims 3, 4, 7–10, and 13 depend from claim 1. App. Br. 48–50 (Claims App'x). The Examiner deems these claims to be unpatentable over Quigley, Messerly, Kanai, and Bekele, relying on the same findings and determinations regarding Quigley, Messerly, and Kanai as discussed above with respect to the rejection of claim 1. Final Act. 9–13; Ans. 7–11. The Examiner does not rely on Bekele in any manner that would remedy the deficiencies of Quigley, Messerly, and Kanai noted above.

We additionally find that the Examiner's rationale for modifying Quigley's tube in view of Bekele lacks a rational underpinning. The Examiner has not established that Bekele's adhesive has better "adhesive properties" (Final Act. 10) than Quigley's adhesive and, thus, has not set forth a reason why a person of ordinary skill in the art would use Bekele's adhesive in place of Quigley's.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claims 3, 4, 7–10, and 13 as being unpatentable over Quigley, Messerly, Kanai, and Bekele.

Obviousness Based on Quigley, Messerly, Kanai, and Mueller

Claim 5 depends from claim 1. App. Br. 48 (Claims App'x). The Examiner deems this claim to be unpatentable over Quigley, Messerly, Kanai, and Mueller, relying on the same findings and determinations regarding Quigley, Messerly, and Kanai as discussed above with respect to the rejection of claim 1. Final Act. 13–14. The Examiner does not rely on Mueller in any manner that would remedy the deficiencies of Quigley, Messerly, and Kanai noted above.

We additionally find that the Examiner's rationale for modifying Quigley's tube in view of Mueller lacks a rational underpinning. The Examiner has not set forth any reason why a person of ordinary skill in the art would use Mueller's adhesive in place of Quigley's—the fact that Mueller's adhesive can be used "to adhere two layers together" (*id.* at 14) does not provide a reason why the modification would be made.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 5 as being unpatentable over Quigley, Messerly, Kanai, and Mueller.

Obviousness Based on Quigley, Messerly, Kanai, Julien, Penhasi, and Bekele

Claims 11, 12, and 19 depend from claim 1. App. Br. 49, 51 (Claims App'x). The Examiner deems these claims to be unpatentable over Quigley, Messerly, Kanai, Julien, Penhasi, and Bekele, relying on the same findings

and determinations regarding Quigley, Messerly, and Kanai as discussed above with respect to the rejection of claim 1. Final Act. 14–16. The Examiner does not rely on Julien, Penhasi, or Bekele in any manner that would remedy the deficiencies of Quigley, Messerly, and Kanai noted above.

We additionally find that the Examiner's rationales for modifying Quigley's tube lack rational underpinnings. For example, the Examiner has not established that Bekele's adhesive has better "adhesive properties" (*id.* at 15) than Quigley's adhesive and, thus, has not set forth a reason why a person of ordinary skill in the art would use Bekele's adhesive in place of Quigley's.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claims 11, 12, and 19 as being unpatentable over Quigley, Messerly, Kanai, Julien, Penhasi, and Bekele.

Obviousness Based on Quigley, Messerly, Kanai, and Julien

Claim 14 depends from claim 1. App. Br. 50 (Claims App'x). The Examiner deems this claim to be unpatentable over Quigley, Messerly, Kanai, and Julien, relying on the same findings and determinations regarding Quigley, Messerly, and Kanai as discussed above with respect to the rejection of claim 1. Final Act. 16–17. The Examiner does not rely on Julien in any manner that would remedy the deficiencies of Quigley, Messerly, and Kanai noted above.

We additionally find that the Examiner's rationale for modifying Quigley's tube in view of Julien lacks a rational underpinning. The Examiner has not set forth a reason why a person of ordinary skill in the art

would want to modify the thicknesses of Quigley's tube layers—noting the fact that it may be possible to modify the thicknesses of Quigley's tube layers does not establish a reason for doing so. *Id.* at 17.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 14 as being unpatentable over Quigley, Messerly, Kanai, and Julien.

Obviousness Based on Julien and Bekele
Claims 20–23

Independent claim 20 claims a medical tube similar to the tube of claim 1, including, *inter alia*, "an adhesive . . . disposed between and binding the barrier layer and the inner layer." App. Br. 51 (Claims App'x).

The Examiner finds that Julien discloses a medical tube substantially as claimed in claim 20, including, *inter alia*, an inner layer (thermoplastic layer 10), a barrier layer (elastomeric layer 20 in combination with barrier layer 30), an outer layer (elastomeric layer 40), and "an adhesive . . . disposed between the barrier layer and the inner layer," but fails to disclose "the adhesive comprising one or more ethylene acrylic copolymers." Final Act. 17 (citing Julien ¶ 80) (emphasis omitted). The Examiner finds that Bekele teaches an adhesive comprising "more than about 90% by weight of one or more ethylene acrylic copolymers," and reasons that it would have been obvious to a person of ordinary skill "to use anhydride grafted ethylene acrylate as . . . the material for the adhesive layer in the invention of Julien as taught by Bekele since the material has good adhesive properties." *Id.* at 18.

Appellants traverse, arguing, *inter alia*, that Julien does not disclose an inner layer bound to a barrier layer. App. Br. 25.

The Examiner responds by noting that "Julien teaches . . . [that] an adhesive layer can be present between the layer 10 and 20, or between layers 30 and 40." Ans. 26 (citing Julien ¶ 80). The Examiner also determines that claim 20 does not require "that the inner layer and the barrier layer [to be] directly bound by the adhesive layer." *Id.* at 27.

Initially, we find error with the Examiner's determination that Julien's elastomeric layer 20 and barrier layer 30, together, correspond to the recited barrier layer. *See* Final Act. 17. Julien's elastomeric layer 20 is placed adjacent inner layer 10 to provide radio frequency (RF) welding capability. Julien ¶¶ 48–49. Elastomeric layer 20, however, is not a barrier layer. Julien provides "inter gas barrier layer **30** . . . sandwiched between the outer layer **20** and outermost layer **40** of the multilayer tubing **200** preferably without the use of adhesive tie layers . . . to provide for resistance to transmission of gases." *Id.* ¶ 77. Thus, it is Julien's layer 30, alone, that corresponds to the recited barrier layer.

Furthermore, we are persuaded by Appellants' arguments. Similarly to claim 1 discussed above, claim 20 recites "an adhesive . . . disposed between and binding the barrier layer and the inner layer." App. Br. 51 (Claims App'x). We construe this language as discussed above, requiring an adhesive to be in contact with both the inner layer and the barrier layer, thereby binding these layer together. Because Julien's elastomeric layer 20 is intermediate inner layer 10 and barrier layer 30, Julien does not satisfy the requirements of claim 20.

We additionally find that the Examiner's rationale for modifying Julien's tube in view of Bekele lacks a rational underpinning. The Examiner

has not established that Bekele's adhesive has better "adhesive properties" (Final Act. 18) than Julien's adhesive and, thus, has not set forth a reason why a person of ordinary skill in the art would use Bekele's adhesive in place of Julien's.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 20, nor of its dependent claims 21–23, as being unpatentable in view of Julien and Bekele.

Claim 24

Independent claim 24 claims a medical tube similar to the medical tube of claim 20, including, *inter alia*, "an adhesive . . . disposed between and binding the barrier layer and the inner layer." App. Br. 52 (Claims App'x). We construe this language as discussed above.

The Examiner deems claim 24 to be unpatentable over Julien and Bekele, relying on similar findings and determinations regarding Julien and Bekele as discussed above with respect to the rejection of claim 20. Final Act. 19.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 24 as being unpatentable in view of Julien and Bekele.

Obviousness Based on Julien, Bekele, and Penhasi

Independent claim 25 claims a medical tube similar to the medical tube of claim 20, including, *inter alia*, "an adhesive . . . disposed between and binding the barrier layer and the inner layer." App. Br. 52–53 (Claims App'x). We construe this language as discussed above.

The Examiner deems claim 25 to be unpatentable over Julien, Bekele, and Penhasi, relying on similar findings and determinations regarding Julien and Bekele as discussed above with respect to the rejection of claim 20. Final Act. 19–20. The Examiner does not rely on Penhasi in any manner that would remedy the deficiencies of Julien and Bekele noted above.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 25 as being unpatentable in view of Julien, Bekele, and Penhasi.

Obviousness Based on Yamada and Kanai

Independent claim 30 claims a method of delivering an aqueous fluid using a tube similar to the tube of claim 1, including, *inter alia*, selecting a tube having "an adhesive layer disposed between and binding the inner and barrier layers and an adhesive layer disposed between and binding the outer and barrier layers." App. Br. 53 (Claims App'x). We construe this language as discussed above.

The Examiner finds that Yamada discloses a method substantially as claimed in claim 30, including, *inter alia*, selecting a tube (catheter 20) having an inner layer (sliding layer 25), a barrier layer (polyimide tube 22), and an outer layer (fluororesin 24), but fails to disclose that "the barrier layer comprises one or more of an ethylene vinyl alcohol copolymer and a polyamide." Final Act. 21 (emphasis omitted). Notably, the Examiner does not address the recited adhesive layers. *Id.* at 21–22. The Examiner finds that Kanai teaches a barrier layer (second layer 19) formed of ethylene vinyl alcohol, and reasons that it would have been obvious to a person of ordinary skill "to use ethylene vinyl alcohol as the material for the barrier layer of

Yamada as taught by Kanai since the material has high gas barrier properties." *Id.*

Appellants traverse, arguing, *inter alia*, that Yamada does not disclose "an adhesive that binds an outer layer or an inner layer to a barrier layer." App. Br. 22 (emphasis omitted).

The Examiner responds that "Yamada teaches that layers 23 and 23 [sic] are formed from polyimide resins including fluororesins which can be adhesive." Ans. 27 (citing Yamada ¶ 33).

We are persuaded by Appellants' argument. Initially, we note that Yamada paragraph 33, relied upon by the Examiner in the Examiner's Answer, refers to the medical wire embodiment rather than the catheter embodiment relied upon in the Final Action. *See* Yamada ¶ 33; Final Act. 21; Ans. 27. Moreover, this paragraph discloses that layer 13 is a "fluororesin adhering layer" that coats the outer surface of resin layer 12 to retain fluororesin layer 14 thereto. Yamada ¶ 33. There is no disclosure, however, that the fluororesin layers themselves exhibit adhering properties—to the contrary, this paragraph suggests the opposite, hence the need to include fluororesin adhering layer 13. Therefore, we are persuaded of error in the Examiner's finding that the fluororesin layers of Yamada's catheter embodiment are adhesives. *See* Reply Br. 8–9.

Furthermore, if fluororesin adhering layer 13 of medical wire 10 were to be added to catheter 20, Yamada teaches that such layer(s) would be added to the surface(s) of tube 22, and fluororesin layers 23, 24 would be positioned on the other side of such adhering layer(s). *See* Yamada ¶¶ 33, 35, 36, Fig. 1. Thus, adhesive layer 13 would bind fluororesin layer 23 to

tube 22, but would not bind sliding layer 25 to tube 22. As discussed above, such configuration does not correspond with the claim language.

We additionally find that the Examiner's rationale for modifying Yamada's tube lacks a rational underpinning. The Examiner has not established that Kanai's barrier layer has better "gas barrier properties" (Final Act. 22) than Yamada's polyimide tube 22 and, thus, has not set forth a reason why a person of ordinary skill in the art would use Kanai's barrier layer in place of Yamada's polyimide tube 22.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 30, nor of its dependent claim 31, as being unpatentable in view of Yamada and Kanai.

Obviousness Based on Yamada, Kanai, Julien, and Bekele

Claims 32 and 33 depend from claim 30. App. Br. 53 (Claim App'x). The Examiner deems these claims to be unpatentable over Yamada, Kanai, Julien, and Bekele, relying on the same findings and determinations regarding Yamada and Kanai as discussed above with respect to claim 30. Final Act. 22–23. The Examiner does not rely on Julien or Bekele in any manner that would remedy the deficiencies of Yamada and Kanai noted above.

We additionally find that the Examiner's rationales for modifying Yamada's catheter lack rational underpinnings. For example, the Examiner has not established that Bekele's adhesive has better "adhesive properties" (Final Act. 23) than Yamada's fluororesin adhering layer 13 (assuming it to be added to Yamada's catheter) and, thus, has not set forth a reason why a

person of ordinary skill in the art would use Bekele's adhesive in Yamada's catheter.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claims 32 and 33 as being unpatentable over Yamada, Kanai, Julien, and Bekele.

Obviousness Based on Yamada, Kanai, Julien, Bekele, and Mueller

Claim 34 depends from claim 30. App. Br. 53–54 (Claims App'x). The Examiner deems this claim to be unpatentable over Yamada, Kanai, Julien, Bekele, and Mueller, relying on the same findings and determinations regarding Yamada and Kanai as discussed above with respect to claim 30. Final Act. 23–24. The Examiner does not rely on Julien, Bekele, or Mueller in any manner that would remedy the deficiencies of Yamada and Kanai noted above.

We additionally find that the Examiner's rationale for modifying Yamada's catheter in view of Mueller lacks a rational underpinning. The Examiner has not set forth any reason why a person of ordinary skill in the art would use Mueller's adhesive in place of Yamada's fluororesin adhering layer 13 (assuming it to be added to Yamada's catheter)—the fact that Mueller's adhesive can be used "to adhere two layers together" (*id.* at 24) does not provide a reason why the modification would be made.

Accordingly, for the foregoing reasons, we do not sustain the rejection of claim 34 as being unpatentable over Yamada, Kanai, Julien, Bekele, and Mueller.

DECISION

The Examiner's decision to reject claims 15, 16, and 18 under 35 U.S.C. § 112, second paragraph, is reversed.

The Examiner's decision to reject claims 1–25 and 30–34 under 35 U.S.C. § 103 is reversed.

We do not reach the Examiner's provisional obviousness-type double patenting rejection.

REVERSED